

AMENDMENTS TO THE CLAIMS

1-40. (Canceled)

41. (Currently amended) A gripper assembly for anchoring a tool within a passage, the gripper assembly having an actuated position in which the gripper assembly substantially prevents movement between the gripper assembly and an inner surface of the passage, and a retracted position in which the gripper assembly permits substantially free relative movement between the gripper assembly and the inner surface of the passage, the gripper assembly comprising:

an elongated mandrel configured to be engaged with respect to the tool;

an elongated engagement member having ends pivotably secured to elements of the gripper assembly;

a driver longitudinally slidable with respect to the mandrel; and

a driver interaction element on a radially inner surface of the engagement member, the driver interaction element configured to interact with the driver;

wherein longitudinal movement of the driver causes interaction between the driver and the driver interaction element substantially without sliding friction therebetween, the interaction varying the radial position of a portion of the engagement member.

42. (Previously presented)The gripper assembly of Claim 41, wherein the driver interaction element comprises a ramped inner surface of the engagement member, the driver comprising a slider element having a roller configured to roll against the ramped surface of the engagement member when the slider element slides longitudinally with respect to the mandrel.

43. (Previously presented)The gripper assembly of Claim 42, wherein the slider element is connected to a piston that is longitudinally slidable with respect to the mandrel.

44. (Previously presented)The gripper assembly of Claim 41, wherein the driver comprises a ramped surface and the driver interaction element comprises a roller on an inner side of the engagement member, the roller configured to roll against the ramped surface when the driver slides longitudinally with respect to the mandrel.

45. (Previously presented)The gripper assembly of Claim 41, further comprising a piston that is longitudinally slidable with respect to the mandrel and longitudinally fixed with

respect to the driver, the piston having a first side adapted to receive a fluid pressure force for moving the piston and driver in a first longitudinal direction with respect to the mandrel.

46. (Previously presented) The gripper assembly of Claim 45, wherein the piston has a second side adapted to receive a fluid pressure force for moving the piston and driver in a second longitudinal direction with respect to the mandrel, the second longitudinal direction being opposite to the first longitudinal direction.

47. (Previously presented) The gripper assembly of Claim 45, wherein the driver and the piston each surroundingly engage a length of the mandrel.

48. (Previously presented) The gripper assembly of Claim 41, wherein the mandrel is generally cylindrical and the driver surroundingly engages a length of the mandrel.

49. (Previously presented) The gripper assembly of Claim 41, further comprising one or more additional elongated engagement members having ends pivotably secured to elements of the gripper assembly, each of the one or more additional engagement members having a driver interaction element, wherein longitudinal movement of the driver with respect to the mandrel causes interaction between the driver and the driver interaction elements of the one or more additional engagement members so as to vary the radial positions of portions of each of the one or more additional engagement members.

50. (Previously presented) The gripper assembly of Claim 49, wherein the elongated engagement member and the one or more additional elongated engagement members are substantially equally spaced about a circumference of the mandrel.

51. (Currently amended) A tool for use within a passage, comprising:

an elongated body; and

a gripper assembly engaged with the body for anchoring the tool within the passage, the gripper assembly having an actuated position in which the gripper assembly substantially prevents movement between the gripper assembly and an inner surface of the passage, and a retracted position in which the gripper assembly permits substantially free relative movement between the gripper assembly and the inner surface of the passage, the gripper assembly comprising:

an elongated mandrel engaged with respect to the body;

an elongated engagement member having ends pivotably secured to elements of the gripper assembly;

a driver longitudinally slidable with respect to the mandrel; and

a driver interaction element on a radially inwardly facing surface of the engagement member, the driver interaction element configured to interact with the driver;

wherein longitudinal movement of the driver causes interaction between the driver and the driver interaction element substantially without sliding friction therebetween, the interaction varying the radial position of a portion of the engagement member.

52. (Previously presented) The tool of Claim 51, wherein the driver interaction element comprises a ramped inner surface of the engagement member, the driver comprising a slider element having a roller configured to roll against the ramped surface of the engagement member when the slider element slides longitudinally with respect to the mandrel.

53. (Previously presented) The tool of Claim 51, wherein the driver comprises a ramped surface and the driver interaction element comprises a roller on an inner side of the engagement member, the roller configured to roll against the ramped surface when the driver slides longitudinally with respect to the mandrel.

54. (Previously presented) The tool of Claim 51, wherein the mandrel is longitudinally movably engaged with respect to the body.

55. (Previously presented) The tool of Claim 51, further comprising coiled tubing attached to an end of the body, the coiled tubing adapted to convey pressurized fluid to the body, the body including an internal longitudinal passage adapted to receive pressurized fluid conveyed through the coiled tubing, the internal passage adapted to convey such pressurized fluid to move the driver longitudinally.

56. (Currently amended) A tool for use within a passage, comprising:

an elongated body; and

a gripper assembly engaged with the body for anchoring the tool within the passage, the gripper assembly having an actuated position in which the gripper assembly substantially prevents movement between the gripper assembly and an inner surface of

the passage, and a retracted position in which the gripper assembly permits substantially free relative movement between the gripper assembly and the inner surface of the passage, the gripper assembly comprising:

an elongated mandrel engaged with respect to the body;

a driver longitudinally slidable with respect to the mandrel; and

a plurality of elongated engagement members having ends pivotably secured to elements of the gripper assembly, each engagement member having a radially inwardly facing surface with a driver interaction element configured to interact with the driver;

wherein longitudinal movement of the driver causes interaction between the driver and the driver interaction elements of the engagement members substantially without sliding friction therebetween, the interaction varying the radial positions of portions of the engagement members.

57. (Previously presented)The tool of Claim 56, wherein each driver interaction element comprises a ramped surface, the driver comprising a slider element having a plurality of rollers, each roller being configured to roll against one of the ramped surfaces when the slider element slides longitudinally with respect to the mandrel.

58. (Previously presented)The tool of Claim 56, wherein the driver includes a plurality of ramped surfaces, each driver interaction element comprising a roller on an inner side of one of the engagement members, the rollers configured to roll against the ramped surfaces of the driver when the driver slides longitudinally with respect to the mandrel.

59. (Previously presented)A tractor for moving within a passage, comprising:

an elongated body; and

a gripper assembly longitudinally movably engaged with respect to the body, the gripper assembly having an actuated position in which the gripper assembly substantially prevents movement between the gripper assembly and an inner surface of the passage, and a retracted position in which the gripper assembly permits substantially free relative movement between the gripper assembly and the inner surface of the passage, the gripper assembly comprising:

an elongated mandrel longitudinally movably engaged with respect to the body;

a plurality of elongated engagement members having ends pivotably secured to elements of the gripper assembly, each engagement member having a ramp on a radially inner side of the engagement member;

a slider element longitudinally slidable with respect to the mandrel, the slider element including a plurality of rollers, each roller being configured to roll against one of the ramps of the engagement members;

wherein longitudinal movement of the slider element causes the rollers to roll against the ramps of the engagement members to vary the radial positions of portions of the engagement members.

60. (New) A gripper assembly for anchoring a tool within a passage, the gripper assembly having an actuated position in which the gripper assembly substantially prevents movement between the gripper assembly and an inner surface of the passage, and a retracted position in which the gripper assembly permits substantially free relative movement between the gripper assembly and the inner surface of the passage, the gripper assembly comprising:

an elongated mandrel configured to be engaged with respect to the tool;

an elongated engagement member having ends pivotably secured to elements of the gripper assembly;

a driver longitudinally slidable with respect to the mandrel; and

a driver interaction element on the engagement member, the driver interaction element configured to interact with the driver;

wherein longitudinal movement of the driver causes interaction between the driver and the driver interaction element substantially without sliding friction therebetween, the interaction varying the radial position of a portion of the engagement member, the driver interaction element comprising a ramped inner surface of the engagement member, the driver comprising a slider element having a roller configured to roll against the ramped surface of the engagement member when the slider element slides longitudinally with respect to the mandrel.

61. (New) The gripper assembly of Claim 60, wherein the slider element is connected to a piston that is longitudinally slidable with respect to the mandrel.

62. (New) A gripper assembly for anchoring a tool within a passage, the gripper assembly having an actuated position in which the gripper assembly substantially prevents movement between the gripper assembly and an inner surface of the passage, and a retracted position in which the gripper assembly permits substantially free relative movement between the gripper assembly and the inner surface of the passage, the gripper assembly comprising:

an elongated mandrel configured to be engaged with respect to the tool;

an elongated engagement member having ends pivotably secured to elements of the gripper assembly;

a driver longitudinally slidable with respect to the mandrel; and

a driver interaction element on the engagement member, the driver interaction element configured to interact with the driver;

wherein longitudinal movement of the driver causes interaction between the driver and the driver interaction element substantially without sliding friction therebetween, the interaction varying the radial position of a portion of the engagement member, the driver comprising a ramped surface and the driver interaction element comprising a roller on an inner side of the engagement member, the roller configured to roll against the ramped surface when the driver slides longitudinally with respect to the mandrel.

63. (New) A tool for use within a passage, comprising:

an elongated body; and

a gripper assembly engaged with the body for anchoring the tool within the passage, the gripper assembly having an actuated position in which the gripper assembly substantially prevents movement between the gripper assembly and an inner surface of the passage, and a retracted position in which the gripper assembly permits substantially free relative movement between the gripper assembly and the inner surface of the passage, the gripper assembly comprising:

an elongated mandrel engaged with respect to the body;

an elongated engagement member having ends pivotably secured to elements of the gripper assembly;

a driver longitudinally slidable with respect to the mandrel; and

a driver interaction element on the engagement member, the driver interaction element configured to interact with the driver;

wherein longitudinal movement of the driver causes interaction between the driver and the driver interaction element substantially without sliding friction therebetween, the interaction varying the radial position of a portion of the engagement member, the driver interaction element comprising a ramped inner surface of the engagement member, the driver comprising a slider element having a roller configured to roll against the ramped surface of the engagement member when the slider element slides longitudinally with respect to the mandrel.

64. (New) A tool for use within a passage, comprising:

an elongated body; and

a gripper assembly engaged with the body for anchoring the tool within the passage, the gripper assembly having an actuated position in which the gripper assembly substantially prevents movement between the gripper assembly and an inner surface of the passage, and a retracted position in which the gripper assembly permits substantially free relative movement between the gripper assembly and the inner surface of the passage, the gripper assembly comprising:

an elongated mandrel engaged with respect to the body;

an elongated engagement member having ends pivotably secured to elements of the gripper assembly;

a driver longitudinally slidable with respect to the mandrel; and

a driver interaction element on the engagement member, the driver interaction element configured to interact with the driver;

wherein longitudinal movement of the driver causes interaction between the driver and the driver interaction element substantially without sliding friction therebetween, the interaction varying the radial position of a portion of the engagement member, the driver comprising a ramped surface and the driver interaction element comprising a roller on an inner side of the engagement member, the roller configured to roll against the ramped surface when the driver slides longitudinally with respect to the mandrel.

65. (New) A tool for use within a passage, comprising:

an elongated body; and

a gripper assembly engaged with the body for anchoring the tool within the passage, the gripper assembly having an actuated position in which the gripper assembly substantially prevents movement between the gripper assembly and an inner surface of the passage, and a retracted position in which the gripper assembly permits substantially free relative movement between the gripper assembly and the inner surface of the passage, the gripper assembly comprising:

an elongated mandrel engaged with respect to the body;

a driver longitudinally slidable with respect to the mandrel; and

a plurality of elongated engagement members having ends pivotably secured to elements of the gripper assembly, each engagement member having a driver interaction element configured to interact with the driver;

wherein longitudinal movement of the driver causes interaction between the driver and the driver interaction elements of the engagement members substantially without sliding friction therebetween, the interaction varying the radial positions of portions of the engagement members, each driver interaction element comprising a ramped surface, the driver comprising a slider element having a plurality of rollers, each roller being configured to roll against one of the ramped surfaces when the slider element slides longitudinally with respect to the mandrel.

66. (New) A tool for use within a passage, comprising:

an elongated body; and

a gripper assembly engaged with the body for anchoring the tool within the passage, the gripper assembly having an actuated position in which the gripper assembly substantially prevents movement between the gripper assembly and an inner surface of the passage, and a retracted position in which the gripper assembly permits substantially free relative movement between the gripper assembly and the inner surface of the passage, the gripper assembly comprising:

an elongated mandrel engaged with respect to the body;

a driver longitudinally slidable with respect to the mandrel; and

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a plurality of elongated engagement members having ends pivotably secured to elements of the gripper assembly, each engagement member having a driver interaction element configured to interact with the driver;

wherein longitudinal movement of the driver causes interaction between the driver and the driver interaction elements of the engagement members substantially without sliding friction therebetween, the interaction varying the radial positions of portions of the engagement members, the driver including a plurality of ramped surfaces, each driver interaction element comprising a roller on an inner side of one of the engagement members, the rollers configured to roll against the ramped surfaces of the driver when the driver slides longitudinally with respect to the mandrel.